Client:

Our client is the leading provider of **independent, multi-asset class, high value services** for the global financial market.

Business Needs:

The client had developed a real-time, secure communication connectivity tool which is faster, more productive and shares information more securely than email. It is a leading enterprise instant messaging solution that meets security and Compliance Requirements. It's more valuable than stand-alone IM.

The ongoing changes/enhancements required continuous testing from client, which consumes significant amount of time and effort.

So the client was looking at a test partner to:

- Automate the regression testing for the application to reduce the time and cost incurred through manual testing

- Use an Automation framework which provides reusability and eases maintenance issues of traditional automation approach

- Maintenance of the test assets like test scripts and repositories

- Integrate the test management tools to improve scheduling capability to run test scripts in various environments

- Offshore the test automation activities for improved cost benefit.

Approach and Solution:

The test team used Tekstrom's Advanced Test Automation Framework. This framework methodology adopted for generating WinRunner scripts was based on functional decomposition combined with data driven approach. This methodology involved creating reusable user defined libraries, test data, recovery scenarios, etc. Test execution was managed and controlled with TestDirector.

The major challenges faced are as follows.

Challenge: Selecting a Contact in a Java Tree
When a contact in a JavaTree is selected, QTP was not recording the contact name in the script. And later on it was quite difficult to identify which contact QTP has recorded.

Solution:
This problem is solved by recording a contact by index. To do this "Record by Index" option under Tree View Record Items Mode of Tools Options is enabled.

Challenge: Double Click a Contact
Double click operation on a contact performed during the recording is not played during the execution of the script.

Solution:
The exact x, y coordinates of the contact in the Java Tree is retrieved from runtime object properties. A device replay object is created and the x, y coordinate information is passed to it to perform the double click operation.

Challenge: Checking the new message in the Conversation window
Every time a message is entered it will appear in the conversation window of the corresponding contact. As the messages in the conversation window differ during the execution, the text checkpoint created to check whether new message is being sent is failing.

Solution:
A function was designed which would retrieve the messages in the current conversation window and check whether new message is present as the last line.

Business Benefits:

The client got a highly maintainable test suite and reduced the turnaround time for regression test execution. The client also reaped the cost and time benefits due to test automation.

Tools and Technologies:

Platform : Windows XP, 2000, 98
Technology : Java
Tool : QTP 8.2 with Java Add-in, TestDirector 8.0